

III. REMARKS

1. Claims 1-11, 16, 18-28 and 33 are not anticipated by Josse et al. ("Josse") U.S. Patent No. 6,104,922 under 35 U.S.C. §102(e).

Claim 1 recites transmitting a request message for location service and performing at least one location service function. Josse does not disclose or suggest "location service" as described and claimed by Applicant.

Josse describes GPRS (General Packet Radio Service), where **location updating** (cf. column 2 lines 25-32) is performed for the mobile station. Location updating is a function belonging to the location registration, with which the location information is updated to the HLR (Home Location Register), VLR (Visitor Location Register) or SGSN (Serving GPRS Support Node). Location registration is a function which **enables roaming** and with the help of which mobile networks keep track of the location information of mobile station. The updated location area (or routing area for packet-switched connections) information enables the establishment of a mobile terminated call (or packet-switched data transfer). In GPRS, "attach" may be used for location updating (cf. column 2 line 33 onwards). In essence, location updating produces location information that is only used for **call / packet data transfer management internally** in the cellular radio system.

"Location updating" is different from the "location service(s)" (LCS) of the present application. **Location service(s)** is a service concept in system standardization that specifies all the necessary network elements and entities, their functions, interfaces, and communication messages that are due to implement location services in a cellular network. System means here, for

example, GSM (Global System for Mobile Communications) or UMTS (Universal Mobile Telecommunications System). In GSM, location service(s) provides the operators with mechanisms to locate the mobile subscribers thus enabling the provision of location applications. The result of the location procedure is the geographical location of the mobile station with good approximation, which can then be an input for other applications. Location service(s) can be offered without subscription to basic telecommunication services. As illustrated in Figure 1D of the present application, a location service(s) **client may be an entity entirely external to the cellular radio system** requesting the location of a specified mobile station.

Location updating of Josse is not the same as location service as claimed by Applicant. Thus, claims 1 and 18 cannot be anticipated by Josse.

Claims 2-11, 16, 19-28 and 33 should be allowable at least by reason of their respective dependencies.

Claims 2 and 19 recite location service functions. These are not disclosed or suggested by Josse. Col. 8, lines 46-60 of Josse refers only to authentication, security and equipment checking operations. It does not discuss determining a subscriber terminal location, informing an outside client of the radio system of the subscriber terminal location, transmission of location assistance data to the subscriber terminal, or transmission of a ciphering key for decrypting the location assistance data to the subscriber terminal, as is recited in claim 2. The ciphering procedure referred to by Josse is one that is conventional and routine in the art. (Col. 8, lines 59-60). Thus, claims 2 and 19 are not anticipated.

Claims 3 and 20 are not anticipated because Josse does not disclose or suggest that the information included in the request message comprises desired quality of service of the requested location service. Rather, Josse describes the quality of service of the service profile requested (= requested connection between the base station and the mobile station). (Col. 17, lines 20-22). This is not the same as a "desired" quality of service. Thus, claims 3 and 20 cannot be anticipated.

Claims 4 and 21 are not anticipated because Josse does not disclose or suggest at least that the other information comprises information on the conditions at the location of the subscriber terminal. Rather, Josse describes "subscription data reflecting e.g. certain ones of these subscription terms and conditions for mobile station". This "subscription data" of Josse has nothing to do with the conditions at the location as claimed by Applicant (cf. paragraph [0061] where temperature is given as an example of the conditions at the location. (Col. 5, lines 6-21). Thus, claims 4 and 21 cannot be anticipated.

Claims 5 and 22 recite that at least part of the "information included in the request message" has been "inserted by the subscriber terminal." Col. 7, lines 23-28 merely describe that the mobile station sends an Attach Request Message to SGSN 24. This is not the same as inserting information as claimed by Applicant.

Claims 6 and 23 recite that at least part of the information is inserted by the radio network. Again, Col. 7, lines 23-28, as discussed above, does not disclose or suggest this.

With regard to claims 7-10 and 24-27, Josse does not disclose or suggest a special location procedure. Josse, Col. 7, lines 21-

40, Col. 8, lines 60-65, merely refer to the Update Location procedure, which, as mentioned earlier, is not the same as Applicant's location service. Col. 9, lines 10-20 only discusses the Insert Subscriber data operation, which is not the same as locating a subscriber terminal on the "basis of information included in the request message" as recited in claims 8 and 25. Claims 9 and 26 recite receiving signals in the subscriber terminal and measuring them. Col. 8, lines 42-44 makes no such disclosure. Claims 10 and 27 recite including signals "transmitted by other base stations of the radio system." Col. 6, lines 1-6 merely refers to the mobile 40 moving to a location not served by SGSN 24, and instead comes under the jurisdiction of another SGSN. Thus, there is still communication with a serving GPRS Support Node.

Claims 11 and 28 recite checking whether a location corresponds to the "target set for the quality of service." Josse, Col. 8, lines 45-60, does not in any way disclose or suggest this feature, and merely relates to authentication and security. Thus, claims 11 and 28 are not anticipated.

2. Claims 12 and 29 are not unpatentable over Josse in view of Mikkonen et al. ("Mikkonen") U.S. Patent No. 6,501,741 under 35 U.S.C. §103(a).

Pursuant to 35 U.S.C. §103(c), Mikkonen is not available as prior art for purposes of 35 U.S.C. §103(a). Mikkonen is, and was at the time of the invention, commonly owned by, or subject to an obligation of assignment to Nokia Mobile Phones, LTD, the assignee of the present application.

3. Claims 13, 14, 30 and 31 are not unpatentable over Josse in view of Sanmugan et al. ("Sanmugan") U.S. Patent No. 6,122,499.

Claims 13, 14, 30 and 31 should be allowable at least by reason of their respective dependencies.

Neither Sanmugan nor Josse disclose or suggest the subscriber terminal "at regular intervals" transmitting "a request message requesting location of the subscriber terminal." Rather, Sanmugan merely describes tracing regions in Col. 25, lines 43-58. When a subscriber makes an access in a RAT-marked region, regional tracing is activated. (Col. 25, lines 47-48). This is not the same as the subscriber terminal transmitting, "at regular intervals" a request message "requesting location of the subscriber terminal." Since the combination of Josse and Sanmugan does not disclose or suggest at least this feature, claims 13 and 30 are not unpatentable.

Claims 14 and 31 recite the "need to determine the location of the subscriber terminal at regular intervals during tracing." Neither Josse nor Sanmugan disclose this feature.

Col. 12, lines 8-20 of Josse only describe sending a Routing Area Update Request Message to the new SGSN. This has nothing to do with tracing or determining the location of the subscriber terminal at regular intervals. As noted above, Sanmugan, Col. 25, lines 43-58, does not make any disclosure related to determining the location of a subscriber terminal at regular intervals. Since neither reference discloses this feature, their combination cannot as well. Thus, claims 14 and 31 are not unpatentable.

4. Claims 15 and 32 are not unpatentable over Josse in view of King et al. ("King") U.S. Patent No. 6,429,808 under 35 U.S.C. §103(a).

Claims 15 and 32 should be allowable at least by reason of their respective dependencies.

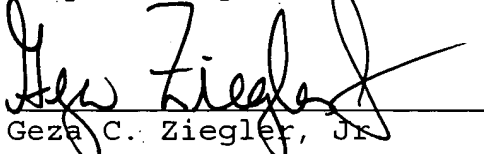
5. Claims 17 and 34 are not unpatentable over Josse in view of Korpela, U.S. Patent No. 6,311,055 under 35 U.S.C. §103(a).

Pursuant to 35 U.S.C. §103(c), Korpela is not available as prior art for purposes of 35 U.S.C. §103(a). Korpela is, and was at the time of the invention, commonly owned by, or subject to an obligation of assignment to Nokia Mobile Phones, LTD, the assignee of the present application.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,


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